

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicants: Anuj Bellare, Wolfgang Fitz, Andreas H. Gomoll, Richard D. Scott  
and Thomas S. Thornhill

Application No.: 10/734,652 Group: 1714

Filed: December 12, 2003 Examiner: Unknown

Confirmation No.: 8950

For: NANOCOMPOSITE SURGICAL MATERIALS AND METHOD OF  
PRODUCING THEM

CERTIFICATE OF MAILING OR TRANSMISSION	
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REQUEST FOR CORRECTED FILING RECEIPT  
FOR UTILITY APPLICATION

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Sir:

We hereby request that the following items of information be corrected in the Filing Receipt for the subject application received in this office on March 24, 2004.

The errors and corrections appear below.

Please delete "Wolfgang Pitz" and insert --Wolfgang Fitz--.

Enclosed are copies of the Filing Receipt with changes noted in red and a copy of the first page of the specification.

Pursuant to instructions in the February 29, 2000 O.G., we hereby request that the errors which are identified above be corrected in the captioned application to which this request for correction is directed. It is understood that the Patent Office will issue an automatically-generated, corrected Filing Receipt in this and, if applicable, any other affected applications.

Respectfully submitted,

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May 21, 2004



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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/734,652	12/12/2003	1714	0.00	1407.1037-009	7	37	8

CONFIRMATION NO. 8950

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## FILING RECEIPT



\*OC000000012152793\*

Date Mailed: 03/22/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

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## Assignment For Published Patent Application

The Brigham and Women's Hospital, Inc., Boston, MA;

## Domestic Priority data as claimed by applicant

This application is a CON of 09/541,374 03/31/2000 PAT 6,689,823  
 which claims benefit of 60/127,244 03/31/1999

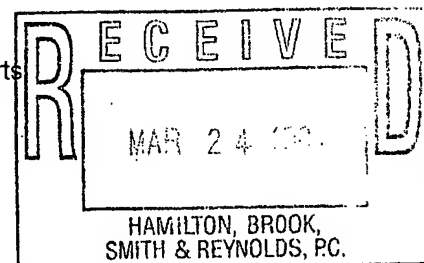
## Foreign Applications

If Required, Foreign Filing License Granted: 03/22/2004

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No



**Title**

Nanocomposite surgical materials and method of producing them

**Preliminary Class**

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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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-1-



Date: 12/12/03 Express Mail Label No. EL 92815271705

Inventors: Anuj Bellare, Wolfgang Fitz, Andreas H. Gomoll,  
Richard D. Scott and Thomas S. Thornhill

Attorney's Docket No.: 1407.1037-009

## NANOCOMPOSITE SURGICAL MATERIALS AND METHOD OF PRODUCING THEM

### RELATED APPLICATIONS

This application is a continuation of U.S. Application No. 09/541,374, filed  
5 March 31, 2000, which claims the benefit of U.S. Provisional Application No.  
60/127,244, filed March 31, 1999. The entire teachings of the above applications are  
incorporated herein by reference.

### BACKGROUND OF THE INVENTION

Surgical materials are important synthetic biomaterials that can be implanted in  
10 humans or animals and are used extensively in orthopedic surgery and related areas such  
as total joint arthroplasty. A number of dental applications also require the use of  
surgical materials such as cements.

The most common cement currently employed in cemented total joint  
arthroplasty is obtained by the polymerization of poly(methyl methacrylate) with methyl  
15 methacrylate monomer. In cemented total joint replacement, the surgical cement, also  
referred to as the bone cement, anchors the prosthesis to the contiguous bone. One  
concern associated with self-curing acrylic-based bone cements is the fracture of  
cements due to defects such as voids and agglomeration of fillers. (Topoleshi LDT. *et al*,  
*Biomaterials* 14(15): 1166-1172 (1993) Microstructural Pathway of Fracture in